society for social responsibility in science

SSRS Newsletter

NO. 58 FEBRUARY 1957

SSRS LEADERS CONSIDER EFFECT OF AAAS STAND ON SCIENCE. SOCIETY

On December 31, the American Asso-iation for the Advancement of Science eleased a long report prepared by ts special committee on the Social spects of Science, and set up a lar-er group to implement the report.

This report (reprinted in full in he January SSRS Newsletter) is a far-eaching statement recommending that cientists everywhere should abandon heir traditional isolation from social roblems, and that scientific organ-zations must take more social respon-ibility.

Because of the great importance of hese events to the purposes of SSRS, ost of this Newsletter will be de-oted to comments and analysis by fficers and other prominent members f this Society.

omment by Victor Paschkis:

In 1955 the annual meeting of the AAS was held, over the objections f many members (the writer included), n Atlanta, Ga. Yet, out of this eeting, at which Negro and white embers were forced to separate at ocial functions, came a decision hat henceforth the Association would ot meet at places where not all embers could join freely at social ffairs. It seems to the writer no oincidence that this act of social onsciousness coincided with the ecision to create an *ad hoc* committee n the social implications of science. his committee drafted a detailed eport and submitted it to the AAAS ouncil.

The recent acceptance of this report by the Council of the AAAS and the release of the text (reprinted in the January SSRS Newsletter) is of signal significance for the scientific community. The Council meeting arriving at this decision, and requesting that the Committee on Social Implications (which has been continued) make suggestions for positive action, may well be classified as a landmark in the relationships of science and society; the 200-300 year old trend of withdrawal, the confusion of the correct statement that science has no value judgments with the incorrect one that the scientist (in his professional field) need have none, is at an end.

So momentous a decision is always the result of many forces; we may be grateful that we dare believe that in however small a measure, our voice was one, helping and urging this move. Now that it is taken we face the great challenge of how to implement it.

The AAAS comprises natural as well as social scientists. May this important step also be one of rapportment of the two big fields of human endeavor.

--Victor Paschkis

Comment by Edward Ramberg:

With the acceptance of the Pigman report, the AAAS gives support to one of the primary contentions of the SSRS, namely that scientists should concern themselves with the social implications of their work. The action of the AAAS Council will not, however, sway individual scientists generally away from their "isolationist" position. SSRS members can be helpful in pointing out the logic of the report and broadening support for its position.

If actions arising from the implementation of the report should have the desired result of increased influence of scientists on public policy, the need for the SSRS would be increased correspondingly. Increased influence of scientists in public affairs is not necessarily for the public good. It is so only if the scientists have high ethical motivation. The SSRS emphasis on personal responsibility for the social effects of professional activity will hence become increasingly essential.

The report also points out another area in which SSRS members--in particular the physical scientists among them--can be active: in advocating increased financial support for fundamental work in the biological and social sciences, so as to redress the present imbalance, which provides mankind with powerful tools without the necessary knowledge of their possible harmful effects.

--Edward Ramberg

Comment by O. Theodor Benfey:

The AAAS action is clearly a milestone, or perhaps more accurately a turning point. If one could be sure that the AAAS is the spokesman for American Science and represents American Scientists, then the Society for Social Responsibility in Science could fittingly conclude its activities in the knowledge that the task for which it was founded had been accomplished. The fact, however, is that the AAAS has taken a very far-sighted step, the importance of which it has to impress on its affiliated organizations. Whether we should now work through the AAAS, or whether we would be more effective to speak out as a separate group is not at the moment clear to me.

The AAAS report brings up an interesting question: Has the time now come to think of establishing an international scientific organization, bringing together the AAAS, BAAS (its British counterpart) and similar organizations for consultation on matters of international concern such as radioactive fallout, communications, food additives etc.? Or does the U.N. and UNESCO fulfill this function? I cannot believe so because United Nations appointees are appointed by governments, and U.N. action demands the assent of governments which may ignore scientific opinion. An independent federation of national scientific bodies might be the next step in international consultation on scientific matters of concern.

--O. Theodor Benfey

no. 58-234, 2511
1957-74 Inc.

This Newsletter is published by the Society for Social Responsibility in Science, an organization of scientists and engineers whose purpose according to its constitution, is to foster throughout the world a functioning cooperative tradition of personal moral responsibility for the consequences for humanity of professional activity, with emphasis on constructive alternatives to militarism;...to embody in this tradition the principle that the individual must abstain from destructive work and devote himself to constructive work, drawing the line between the two according to his own moral judgment;...to ascertain through open and free discussion the boundary between constructive and destructive work to serve as a guide for individual and group discussion and action..."

Statements made in the Newsletter do not necessarily represent official policies of the Society unless so stated. Signed articles are the responsibility of their authors; other material is the responsibility of the Editor.

SSRS President 1956-7:
William T. Scott
Dept. of Physics, Smith College
Northampton, Mass.

SSRS Secretary 1956-7:
John Ewbank
1150 Woods Road
Southampton, Penna.

Newsletter Editor and Compositor:
Truman Kirkpatrick
663 Rochdale Circle
Lombard, Ill.

Newsletter Circulation Manager:
Franklin Miller, Jr.
Gambier, Ohio

Comment by Truman Kirkpatrick:

If a great conference were assembled, to debate the problems of science and its impact on society, some of the points made in the AAAS report might be made by one of the speakers at such a conference. But they would be made by the opening, and not the closing, speaker.

The AAAS report propounds the problems and they are the right problems. When solutions are urgently needed, it is a great step forward when the problems can be recognized and defined. But this is only the beginning. There is a crisis in the relation of science to society, the AAAS truly says. But what then? The AAAS does not even suggest what some of the alternative solutions might be; much less does it say how one might proceed to choose among the possible alternatives.

Here is the difference between the new position of the AAAS, and that of our own SSRS.

The SSRS would say that the crisis demands that scientists take some responsible action as individuals. The AAAS is not yet ready to say this as yet—though the day may soon come.

Further, we of the SSRS would insist that one needed form of responsible action is the adoption of a personal code of scientific ethics, defining an area of acceptable conduct and an area deemed reprehensible. The AAAS may possibly come to this conclusion some day—but not soon.

But the SSRS goes still further, and partially defines the intellectual content of what would be (in SSRS eyes) a suitable code for scientists: "abstention from destructive work... personal moral responsibility...constructive alternatives to militarism." These ideas will not be generally adopted for a long, long time.

The AAAS report does not mean that any of the SSRS concepts have been adopted. It does mean that our approach to the problems of science and society is now recognized as a legitimate subject of discussion. Concern for the social impact of science is no longer "out of bounds."

--Truman Kirkpatrick

Comment by Reino Hakala:

The AAAS committee rightly deplores the fact that, even though our civilization is very largely dependent on the applications of science, when problems arise due to the interaction of science and society, the necessary communication between science and the rest of society is largely absent, whence society does not obtain the information it needs to find adequate solutions to these problems. The question is, what to do about it?

It is obvious that the American public is anti-intellectual and wants as little contact as possible with scientists who, more often than not, are depicted in movies, TV, radio and novels as bogey-men, bent on enslavement and destruction. The public is ready, however, to enjoy TV, wonder drugs, etc., etc., so long as it does not have to worry about the source of these gifts.

To counteract this attitude, a vigorous educational program is needed. The initial efforts in this direction must come from the scientists, for only they see the need. Once the public itself has a scientific attitude, the problem of communication between science and society will no longer exist. Until such education is undertaken, the problem will continue to be with us.

Who should undertake this progra I suggest the AAAS should, becau it is so influential.

Until communication between scien and society is established, sufficie to ensure a continuing and healt growth of science on all fronts, a its proper application, it behoov the individual scientist to absta from research which in his opini is likely to be misused by a socie unaware of the disastrous consequenc of such misuse. I am thinking in pa ticular of the continued testing H-bombs regardless of the consequenc to the health of the world's people and of the U.S. armed forces' commi ment to use atomic weapons in t event of another major war when, the words of Lt. Gen. Gavin of t Strategic Air Command, several hundr million people in Europe and/or As would perish from the effects of loc fallout, their location depending up which way the wind happened to blo

Scientists need, it seems to me, ethical code somewhat similar to tho of other professional groups. The ne is great today because there is su a small time lag between discovery a application. Ethical codes develop early in other professional grou because their members are concern primarily with applications rath than discoveries.

The AAAS report is a hopeful si that scientists in general are beco ing aware of the need for soci responsibility in science.

--Reino Haka

Comment by David Telfair:

The recent move of the AAAS in t direction of more concern for t social impact of science is ve encouraging. It seems to me th the SSRS, and indeed all humanity, greatly indebted to Dr. Pigman a his committee for boldly presenti the need for a new approach in the report. It helps to clarify t ambivalence of society towards scien

The report refers to the unbalanc growth of science and the need f a more consciously planned grow in the future. To me this proble of planning, with its implied "contr from above", raises a very difficu problem, but one which must be fac squarely. As the explosive growth science (and of world populatio proceeds, a greater measure of soci planning and control seems unavoi able. The problem is whether or n this social planning can be acco plished in a way which is compatib with the western ideal of democra and the worth of the individu Surely, the United States, as champion of political democra

should play a leading role in demonstrating that problems attendant to the growth of science can be met in a democratic, non-totalitarian way.

Surely, too, scientists and science must "stand up and be counted" if this is to be successfully carried out. The action of the AAAS has, to my mind, been long overdue.

--David Telfair

Comment by Herbert Jehle:

The "Convention Report on the Impact of Science on Social Forces" (AAAS, cf. our Newsletter Jan. 1957) is a real landmark in the development of social consciousness among our colleagues. It is a healthy sign that at the end of Section V, Major Social Issues of Scientific Origin, there is the statement, "Perhaps the most striking example of this phenomenon is modern warfare, which represents a social decision to use the power of scientific knowledge for purposes of destruction and death." The news-reporter characteristically gave the appropriate headline to the section in which this statement appeared: "Poor Flood Control"! No doubt the news-reporter wanted to draw attention to Noah's experience...

Happy as I am about these new developments in the AAAS, I asked a friend of mine why the SSRS was not permitted to become affiliated with the AAAS when it applied for that in 1954. The answer was "because it is a propaganda organization." Those who made the adverse decision at that time thought so and decided accordingly.

"Apologia" or justification of our (the SSRS's) existence is evidently a waste of time or misdirected emotion. The real progress seems to me that such a statement as the new report effectively may break the old vicious circle: secrecy and political intolerance made discussion of the vital issues of our generation, perhaps the most vital issues mankind ever faced, to become deafened. In consequence, we find that even quite a few brilliant scientists evaluate social implications of science on never erring common sense. And that might lead us to the brink.

--Herbert Jehle

Comment by William T. Scott:

The general subject of the relation of science and society is one that goes far beyond the scope of SSRS, as indicated by the wide range of topics in the AAAS report that we touch only tangentially. The problem of the personal conscience is just one facet of the whole business of social responsibility, which we feel is not adequately cared for by other organizations, and which is in fact our reason for existence.

The problem of personal conscience is easy in regard to scientific honesty, or in regard to dangers from non-military radiation exposure, or the possible dangers of antibiotics as food additives, or the depletion of natural resources; concerning these there is no ends-and-means argument.

The situation is different with respect to destructive military applications. Those who sincerely believe that we can prevent war by the development of more destructive weapons, and that this is the primary and most necessary part of national defense, will feel duty-bound to work on such weapons, or at least to put the responsibility on government for deciding whether they should be worked on.

It appears to me, however, that many who take the government's word on the need for weapons do so with an uneasy conscience, as if they did not really believe that this is the best way to peace. Many, of course, feel that the State should decide the individual's moral problem in this field. Anyone who works on military projects and has any concern for his fellow man is bound in any case to dislike his task and wish it were unnecessary, a state of mind from which the escape of non-concern is all too easy.

Finally, a conscientious and all-out effort to make faster and deadlier weapons takes effort away from the fundamental problem of reducing tensions and promoting the abolition of war. Sensitive people involved in war work are likely for this reason also to be unready to take a clear conscientious stand. Thus there are many reasons, beside the division of opinion on whether military means are the proper ones for the defense of freedom and values, which would prevent any general scientific organization such as the AAAS from taking a stand on the personal question.

We are immensely grateful that the Association has adopted its new position. We shall stick to our own task of emphasizing the personal side of the question of responsibility, and look forward to a period of increased cooperation between the two organizations based on a mutual appreciation of the different functions of each.

- William T. Scott

AN APPEAL

Free elections are fundamental in a democracy, but a significant election requires a list of strong candidates. In the SSRS we have a group of sincere, concerned, strongly motivated people promoting ideas that require creative thinking and courageous effort. Most of us, I am sure, would like very much to have our creative program continue and develop. You, the membership, can help by suggesting names to the Nominating Committee for the slate in next September's election. Preparations for the balloting are now in progress.

The Nominating Committee does not know the entire membership and must rely on others for support in its endeavor to find good candidates. Many of you are located in college areas, and others are in touch with fellow members in the laboratory and industrial arena. Whatever the case, here is something everyone can do. The Nominating Committee asks each member to examine the list of vacancies and to send suggestions of names for candidates.

All the officers (except members of the Board of Appeals) meet in a body as the Council of the SSRS, and it is helpful, but not essential, that they be located in an area that permits travel to and from a Council meeting within the time of one weekend.

If you believe the SSRS has a dynamic future, lend your support to this effort to obtain an outstanding group of candidates.

--Elmer Goetz, Jr., Chairman, Nominating Committee, 630 E. Chelten Ave., Philadelphia 44.

Officers to be chosen include President, Vice-President, Chairmen of the Education and Occupation Divisions, Chairman of the Membership Committee, seven Delegates-at-large and Five members of the Board of Appeals.

NEW PAMPHLETS

SSRS Pamphlet No. 2, "The Dilemma of the Scientist", and SSRS Pamphlet No. 3, "Three Essays on Social Responsibility", have just come from the printer. They may be obtained from Reino Hakala, 310 Benham Ave., Bridgeport 4, Conn. Reviews of these pamphlets will appear in our next issue.

LETTERS

To the Editor of the Newsletter:

In the October Newsletter, we were told of the Purdue study in which a disquietingly large proportion of high school students rated science low among their occupational choices, and atomic scientist lowest of all. Considerations of supposed lack of social responsibility on the part of scientists were evident in the thinking of many of the students queried. Now comes another study, this time by the National Honor Society. The bright boys (top 5%) chose engineering, followed closely by science research, medicine and business. Teaching was the overwhelming choice of the Honor Society girls.

This is encouraging, for it indicates that those who are equipped for the work are not those who shy away from it. The Purdue study covered high school students at all levels of intellectual ability, while the National Honor Society study sampled the gifted students only. One thing we can learn from all this is that we need to interpret science—its objectives and methods—to the student of average ability. There is nothing we can do about the complaint that scientists geniuses—an exaggeration but still a recognition of the need for high intellectual standards. However, we *can* do something to increase the social acceptance of scientists by the average high school student.

Statements attributed to students in the October Newsletter are to be deplored. Nobody is in a better position to do the deploring than are the National Honor Society members who, themselves, have chosen science and engineering in preference to business and even medicine. We should reach, preferably through their teachers and classmates, those high school students who think there is something evil" about scientists. In this connection we note that about half of the N.H.S. girls indicated teaching as the profession of first choice—a profession of idealism and service. Here is an opportunity for these young future teachers to exert influence on their contemporaries. It will take hard study and discussion, perhaps in Future Teachers of America meetings and the like. Somehow, it should be possible to meet the challenge of the Purdue report from within the school framework. We on the outside must try to exhibit a social concern and intellectual honesty that can appeal to the students who think of us as self-centered and dishonest, as well as evil and odd". Communication between scientist and high school student must be opened up and maintained.

Franklin Miller, Jr.
Gambier, Ohio

To the Editor of the Newsletter:

At nearly the same time in 1956, the National Academy of Sciences in the United States and the Medical Research Council in England gave their reports to their respective governments on the effect of atomic radiation. The American report is broader in scope, but the British report is more detailed in its presentation. It might be interesting to note a difference between the two reports.

Although emphasizing that any radiation is genetically harmful, the National Academy of Sciences recommends that for the present, members of the general population should not receive an average of more than 10 roentgens radiation in addition to background radiation.

The Medical Research Council says it is not within its province to set a radiation limit, but says, "we feel bound to state our opinion that it is unlikely that any authoritative recommendation will name a figure" which is more than 5.8 roentgen (my computation from their information). They go on to say, "The recommended figure may indeed be appreciably lower than this..."

Both reports agree on the probable amount of radiation that would double the number of mutations, so the two start from the same point as to genetic harm done by radiation. Since the Medical Research Council feels the radiation limit should be much lower than that set by the National Academy of Sciences, it would appear that the British group feels more responsibility for future generations.

Walter Gorml
412 N. Third St. W
Mt. Vernon, Iowa

EMPLOYMENT

SITUATIONS WANTED

67. Electrophysicist, Ph.D., age 3[illegible] seeks employment in pharmaceutical medical equipment, medical instrumentation or allied fields.

Send replies to these ads to the SSRS Occupation Division Chairman, Norman Polster, at his new address,
855 Woods Road
Southampton, Pa.

SITUATIONS OPEN

Research Assistantship for a graduate student in biochemistry; work on bio synthesis of amino acids; half-time study toward an M.S. degree; $150 stipend per year; start in September graduates of liberal arts college encouraged to apply. For further information, write to Dr. R. L. Wixom Department of Biochemistry, School of Medicine, University of Arkansas Little Rock, Arkansas, with copy to Norman Polster, 855 Woods Road, Southampton, Penna.

Microbiologist, Ph.D. or experienced person in soil microorganisms needed to head work in soils research program. Write to Dr. S. D. Marble, Wilmington College, Wilmington, O., with copy to N. E. Polster, 855 Woods Rd., Southampton, Pa.

Chemical laboratory in Eastern Pennsylvania, specializing in water and milk analysis, is looking for a bacteriologist to start work in July.

SSRS Newsletter No. 58 February 1957
Society for Social Responsibility in Science
Gambier, Ohio

Sec. 34.66 P.L.&R.
U.S. POSTAGE
PAID
GAMBIER, O.
Permit No. 43

Mr. Herbert W. Berky
146 Spring St.
Bluffton, Ohio

M50g

Postmaster: Form 3547 Requested